

## REMARKS

In response to the Office Action, dated September 30, 2002, Claims 35 to 64 have been deleted and new Claims 65 to 93 have been added. Care has been taken to avoid the introduction of new matter and basis for the introduction of new Claims 65 to 93 is set out below. Also attached hereto on a separate page is an abstract for the application. Favourable reconsideration of this application as now amended is respectfully solicited.

### Paragraph 3:

The application does not contain an abstract of the disclosure as required by 37 CFR 1.72(b).

This objection is overcome by the amendment of the specification to incorporate an abstract, which is enclosed herewith.

### Paragraph 4:

Claims 40-49, 53, 55, 56, 59 and 60 are objected to under 37 CFR 1.75(c) as being in improper form.

This objection is overcome by the amendment made herein to delete Claims 35 to 64.

### Paragraph 5:

Claim 64 is rejected under 35 USC 101.

This objection is overcome by the amendments made herein to delete Claim 64.

### Paragraph 7:

Claims 35-39, 50-52, 54, 58, 63 and 64 are rejected under 35 USC 112 as being indefinite.

This objection is overcome by the amendment made herein to delete Claims 35 to 64.

With reference to Part D of Paragraph 7, new Claims 69, 82, 92 and 93 provide the option of using low molecular weight polyethylene glycols and this term would be understood clearly by one skilled in the art.

With reference to Part E of Paragraph 7, new Claim 76 requires that the composition is prepared substantially without melting of the PVA. This term would also be understood clearly by one skilled in the art and clearly differentiates over known

methods of producing PVA compositions in which melting of the composition typically forms an important part of the process. The term "substantially" is required as there may be microscopic scale melting in the mixing process.

Paragraph 10:

Claims 35-39, 50-52, 54, 57, 58 and 62-63 are rejected under 35 USC 102(b or e) as anticipated by or, in the alternative, under 35 USC 103(a) as obvious over IE 970,280, Gerontopoulos et al. (US 4,571, 315), Weyand (US 4,724,121), Redd et al. (US 5,552,461), Loomis et al (US 5,852,114) or Giltsoft (US 5,948,848).

This objection is overcome by the amendment made herein to delete Claims 35 to 64.

Basis for new Claims 65 to 93 can be found in the application as filed, as discussed below.

Basis for new Claim 65 can be found in Claims 9 and 22 of the International application as filed in combination with the third paragraph on Page 14. New Claims 66 to 77 are closely based on pending Claims 36 to 49 and Claim 54 to 56 of the present application. New Claim 78 is based on pending Claims 57, 61 and 62 of the present application, which have basis in Claims 24, 25, 29 and 30 of the International application as filed. New Claims 79 to 81 are closely based on Claims 26 to 28 of the International application as filed.

Basis for new Claim 82 can be found in Claims 1-5, 7, 9, 18 and 19 and on Page 8 Line 27 of the description of the International Application as filed. As outlined on Page 3 Lines 11 to 13, incorporation of a filler into the composition allows the composition to be manufactured relatively inexpensively whilst retaining the properties of the PVA. The hard upper limit of 50% filler disclosed on Page 8 Line 27 has not been incorporated into new Claim 82. As discussed on Page 5 Lines 23 to 25 of the application as filed, the proportion of components present in compositions of the invention may vary and that embodiments generally comprise up to 50% filler. This clearly teaches that 50% is not a hard upper limit. The third paragraph on Page 3 of the International application as filed explains the benefits of adding more filler, without specifying any upper limit on the filler.

It is further submitted that new Claims 65 to 93 are not anticipated by or obvious over IE 970,280, Gerontopoulos et al. (US 4,571, 315), Weyand (US 4,724,121), Redd et al. (US 5,552,461), Loomis et al (US 5,852,114) or Giltsoft (US 5,948,848).

None of the documents cited disclose examples of compositions with the specific combination of elements claimed in the Independent claims and the compositions disclosed do not provide the advantages of the present invention, as set out below.

Gerontopoulos discloses a method of preparing pellets of a ceramic material. The ceramic material is contained within an aqueous solution and a gelling agent is used to produce the gel particles. However, the addition of PVA, lubricant, a filler and a plasticiser in the specified quantities is not disclosed.

Weyand discloses a process comprising spray-drying a powder-containing slurry wherein a dominant component of the powder comprises a metal such as iron. Column 6 Lines 21 to 25 disclose the use of PVA as a binder, but binder is only disclosed as being present in the composition at a level of 1 to 2%. This would clearly result in a composition with totally different properties to a PVA-based composition and the advantages disclosed in the present application would not be provided. In particular, the composition disclosed in Weyand would not result in an extrudable polymer that retains the advantageous properties of PVA as set out on Page 1 of the present application.

Redd discloses a composition comprising a mixture of starch and polymer, however the polymer is disclosed as being present only in small amounts (for example see Column 1 Lines 30 to 35) hence the composition does not provide the advantage disclosed in the present application that the advantageous properties of the polymer are retained. In addition, the compositions disclosed in Redd do not contain an internal lubricant. Indeed, Redd teaches away from the addition of an internal lubricant to the composition, for example Column 3 Lines 60 to 62 discloses that it is essential that the lubricant is not pre-mixed with the starch. In addition, Column 3 Lines 64 to 67 disclose that the composition typically contains no more than 5% of additional components and preferably contains no more than 10% of additional components, hence the document specifically teaches away from adding components such as a filler and a plasticiser in the quantities specified in the claims of the present application.


Loomis et al discloses a compound in which two types of polymer are required to be present in the compound to give the compound biodegradable properties. The use of plasticisers, fillers and lubricants in the compound is also disclosed, but the specific combination of elements in the specific proportions claimed is not disclosed as providing a particularly advantageous composition. Hence the compositions of the present application are not suggested by this document.

Giltsoff discloses examples of compounds that comprise PVA, around 10% plasticiser and around 5% stearamide, or other stabiliser. The compositions disclosed do not further comprise filler and lubricant elements, as required by the claims of the present application.

In summary, the documents cited do not disclose or suggest the combination of components or the proportions in which the components are combined as claimed in the new claims of the present application.

Accordingly, it is submitted that the application as amended is now in condition for allowance. A Notice of Allowability is respectfully solicited.

Respectfully submitted,

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